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SEXUALLY-RELATED INTERNET ACTIVITIES: CROSS-NATIONAL COMPARISON
BETWEEN UNITED STATES AND PERUVIAN YOUNG ADULTS

by

RODRIGO VELEZMORO
B.A. New College of Florida, 2008

A thesis submitted in partial fulfillment of the requirements
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ABSTRACT

The current generation of college students commonly use the Internet for sexual purposes (Boies, 2002; Boies, Cooper, & Osborne, 2004), including finding sexual partners, searching for sex-related information, and viewing sexually explicit materials (SEM) (Boies, 2002). Yet, some authors have suggested that the use of the Internet for sexual purposes might lead to psychological problems (Cooper et al., 2001). However, it is unclear if the problems that are commonly reported (i.e., Internet dependency, isolation, and psychological distress) are caused by using the Internet for sexual purposes. Hence, it is important to examine how college students use the Internet for sexual purposes cross-culturally to determine how common the practice is, how it relates to maladjustment, and to examine if any culture variables are associated with use. Undergraduate students ($n = 320$) from a public university in the United States and Peruvian undergraduate students ($n = 135$) from a public university in Lima, Peru filled out questionnaires addressing their online sexual activities, psychological adjustment, and family communication. Peruvian young adults used the Internet significantly more than U.S. young adults to view SEM, find sexual partners, and search for sex-related information. Men, regardless of nationality, used the Internet to view SEM significantly more than women. Peruvian women used the Internet significantly more to view SEM and find sexual partners than U.S. women. Social support, religiosity, and erotophilia were found to moderate the relations between nationality and OSA. Further, for Peruvians and U.S. young adults, using the Internet for OSA was associated with mild distress, but no serious psychological maladjustment. Implications for college students are discussed.

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CHAPTER ONE: INTRODUCTION

The Internet as a Unique Pathway for Sexuality

In the last three decades, much attention has been directed toward the Internet for being a new vehicle for human sexuality (Cooper, Putnam, Planchon, & Boies, 1999; Griffiths, 2000). Although erotic material has been widespread since the invention of the Gutenberg press, the Internet has facilitated such access (Bakker & Taalas, 2007; Carroll et al., 2008). Moreover, despite that sexuality has always found expression with new technologies, some argue that the Internet has provided a unique pathway for sexual expression (Bakker & Taalas). Sexuality has become ubiquitous on the Internet (Cooper, Griffin-Shelley, Delmonico, & Mathy, 2001). Sex became a popular search term quickly after the popularization of the Internet, and continues to be a popular search term (Bakker & Taalas; Cooper, 1998). Today, sex sites are a major contributor to Internet traffic and sexually explicit material (SEM) is a multi-billion dollar industry (McNair, 2002; Quinn & Forsyth, 2005).

Although SEM is the most visible form of human sexuality online, it represents a diverse array of sexual activities (Cooper & Griffin-Shelley, 2002). Online sexual activities (OSA) refer to any sexual activity online, whether for entertainment, seeking partners, searching for information, or commerce (Cooper & Griffin-Shelley). This includes shopping and purchasing sexual material (Cooper, Morahan-Martin, Mathy, & Maheu, 2002). Sexual predation also occurs online as the Internet is used by some as a vehicle for sexual behavior that is harmful and illegal (Barak, 2005; Griffiths, 2004). For example, the Internet may be used to seek children for sexual purposes (Esposito, 1998; Jenkins, 2002).

Online behavior that seeks to harm or exploit others likely represents the extreme of sexual behavior online. For example, some research has highlighted that the Internet has facilitated the production and distribution of child pornography (Wolak, Finkelhor, & Mitchell, 2005) and may increase sexual desire in those who seek the material, and possibly lead to more crimes committed against children (Taylor & Quayle, 2003). That said, those who have investigated this issue generally have concluded that rates of victimization due to the Internet tend to be exaggerated by popular media, and they have indicated that the Internet is safe generally for minors (e.g., Wolak, Finkelhor, Mitchell, & Ybarra, 2008). Further, it has been found that many children who have been victimized online have a history of offline sexual abuse, thereby possibly obfuscating order of causality between Internet usage and child sexual abuse (see Mitchell, Finkelhor & Wolak, 2001).

Most OSA, however, is not characterized as deviant (Cooper et al., 1999; Cooper, Galbreath, & Becker, 2004). The vast majority of individuals who engage in OSA do not appear to be pathological and do not seem to manifest negative consequences from OSA (Cooper et al., 2004). McKee (2006) found that all users of OSA that he interviewed condemned child pornography, bestiality, and violence. Yet, apart from deviant and illegal behavior, some people do appear to suffer negative consequences from their OSA (Cooper et al., 2001). Online sexual problems arise when people suffer relationship, financial or any type of problem related to their usage of the Internet for OSA (Cooper et al., 2001). Some researchers have found that sexual content was frequently accessed at work computers (Cooper, Safir, & Rosenmann, 2006), suggesting that many individuals may ultimately experience work-related consequences from their OSA. From a broader perspective, some argue that healthy sexuality equates with intimacy

with a partner without dissociating and thinking about something or someone else, and that using OSA may lead to sexual dissatisfaction (Schwartz, Galperin, & Masters, 1995). In addition to being debatable, that idea tends to simplify human sexuality and blames the Internet for individuals' potentially dysfunctional behavior.

The Internet, like any technology, can be both constructive and destructive to individuals and society (Joinson, 2003). Stern and Handel (2001) argue that although the Internet is unique in several ways, the expression of sexuality online is no different than the way sexuality is expressed with any other technology (e.g., Mutoscopes/Kinetoscopes, books/magazines, pictures, VHS tapes, etc). Yet, the Internet's far-reaching influence should not be underestimated. The Internet's power to educate about sexually-related matters and to allow individuals to safely explore their sexuality is invaluable (Newman, 1997). The Internet also serves to link like-minded people, which might be especially beneficial to sexual minorities (Cooper, Scherer, Boies, & Gordon, 1999; Quinn & Forsyth, 2005; Rye & Meaney, 2007). In certain communities, having Internet access might be the only way sexual minorities have to explore their sexuality and communicate with others. As generations are brought up using the Internet, it makes sense that as individuals explore their world, including their sexuality, a web search may follow.

The utility of the Internet as an outlet for sexually-related activity stems from its multifaceted nature and from some of its unique characteristics. Cooper (1998) has labeled these characteristics the 'Triple A Engine': accessibility, affordability and anonymity. Convenience and escapism also have been highlighted as allures of the Internet (Morahan-Martin & Schumacker, 2000; Young, 1999). These features of the Internet seem to play an important role in OSA. Although it is human nature to seek out sex, individuals may be hesitant to seek out a

prostitute or enter into a sex shop (Griffiths, 2004). Yet, the sense of anonymity and the relative inexpensive cost of seeking out sexually-related material online may make doing so more appealing. Sexually-related material has not always been legal in the United States, hence distribution was difficult (Bakker & Taalas, 2007). As new ways of distribution were developed with new technologies, laws generally followed restricting its use (Hunt, 1993). In the 1957 Supreme Court's decision in *Roth v. United States*, the distribution of SEM was legalized (Lane, 2000). It should be noted that many states have laws against SEM, especially material depicting homosexuality, bestiality, and violence, yet outside of child pornography, convictions are rare or non-existent (Bakker & Taalas; Lane).

The Internet has facilitated the distribution process (and subsequent access), and possibly reduced the guilt that some individuals may experience for visiting a sex shop or the possible rejection by someone at a bar or club (Griffiths, 2004; Lane, 2000). Some (e.g., Sprenger, 1999) have suggested that making sexually related material more accessible served as an impetus for the further development of the Internet among academic and government circles in the 1980s. Further, some argued that, paradoxically, the Internet helps authorities to police deviant forms of sexuality such as child pornography by making the distribution easier to track (Kuipers, 2006).

The Internet is a popular source for finding partners as well as sex information (Boies, 2002; Bolding, Davis, Hart, Sherr, & Elford, 2006). In a study by Albright (2008), 15,246 adults were asked about their use of the Internet for sexual purposes. Results indicated that 75% of men and 41% of women had accessed or downloaded SEM. Research has shown that OSA is more common among younger people, men, and the more educated (Boies, 2002; Weiser, 2000). It generally has been found the men consume more SEM (as well as off-line SEM) and that women

are more likely to use the Internet to stay connected to romantic or sexual partners or to seek out partners (Colley & Maltby, 2008; Cooper et al., 1999; Hald, 2006; Quinn & Forsyth, 2005).

CHAPTER TWO: LITERATURE REVIEW

College Students and OSA

The current generation of college students has grown up during the age of the Internet. For some students, their first exposure to sexually-related material may have been on-line (Boies, 2002). Given that sexual exploration and the pursuit of intimate relationships typically co-occur during late adolescence and young adulthood (Erikson, 1980), it is reasonable to expect that college students would make use of the Internet towards these endeavors (Boies, Cooper, & Osborne, 2004; Weiser, 2000). Further, in some ways, being a college student seems to facilitate OSA given the pervasive promotion of Internet usage by faculty and administration for multiple college-related purposes (Young, 2004). Extensive usage of the Internet as a function of college attendance combined with a newfound autonomy from parental oversight may lend itself to OSA, including even abuse of the Internet for OSA (Kandell, 1998; Moore, 1995).

Internet addiction has become a popular term both in and out of academic circles (Murali & George, 2007) and may affect college student disproportionately. Since the popularization of the Internet, some have argued that an “addiction” to the Internet occurs in some people (Young, 1999). Much of this debate has revolved around people spending too much time online and reportedly having psychological and psychosocial problems because of excess use (Greenfield, 1999). The validity of this construct is open to debate (Eppright, Allwood, Stern, & Theiss, 1999; Shaffer, Hall, & Vander Bilt, 2000). Some have argued that Internet addiction is a label created by the mental health profession (Eppright et al., 1999; Lenihan, 2007) and simply represents U.S. society’s attempt to pathologize sex and sexuality (Klein, 2006). Moreover, varying definitions

of what constitutes Internet addiction exist (Chou, Condon, & Belland, 2005). Regardless of differences in definition, in comparison to other populations, college students may have more Internet-related problems (Castiglione, 2007; Chou et al., 2005; Morahan-Martin & Schumacher, 2000).

For example, Boies et al. (2004) studied 760 college students' use of the Internet for online sexual information and entertainment. They found that, on average, those who did not engage in OSA reported being more satisfied with their sexual offline life than those who engaged in OSA. By contrast, those who used the Internet solely for seeking out sexual information showed strong offline social bonds with others. Still, those solely seeking out sexual entertainment did not show signs of dissatisfaction with their life. Boies et al. concluded that those who used the Internet for meeting social needs may be at risk for jeopardizing social bonds. However, in light of the correlational nature of this study, it could be that not having well developed social relationships causes individuals to turn to the Internet to fill that void.

Although young adults might feel connected to others online, they may spend less face-to-face time with others as a result of excessive Internet activity. For example, Morahan-Martin and Schumacher (2000) found that individuals who used the Internet a high number of hours also scored high on the UCLA Loneliness scale. Moreover, among college students (and other adult populations), Internet overuse has been found to be associated with low self-esteem and symptoms of depression (Armstrong, Phillips, & Saling, 2000; Caplan, 2003, 2005; Kim et al., 2006; Morahan-Martin & Schumacher, 2003; Nichols & Nicki, 2004). Naturally, it is difficult to discern if pre-existing adjustment problems lead to more Internet usage or if excessive Internet usage leads to adjustment problems. Both adjustment problems and Internet abuse may be

mutually influential (Davis, 2001). It may be the case that Internet usage only becomes pathological when individuals use the Internet to satisfy too many of their psychological and interpersonal needs (Suler, 1999).

Specific OSA: Findings Partners

Using the Internet to find partners has become popular (Griffiths, 2004). Television advertisements sell matching websites (e.g., Match.com, eHarmony.com) to people of all ages. Apart from those websites, people seek out partners via online in chat rooms and forums. Boies (2002) studied 760 university student's OSA's and found that 41.8% had reported using the Internet to find a romantic partner. Online infidelity, defined as secretly seeking an emotional or sexual relationship outside one's committed relationship with someone online, also occurs (Cooper, McLoughlin, & Campbell, 2000; Millner, 2008; Whitty, 2003). Although some seek long-term partners, many individuals appear to simply seek sex (McFarlane, Bull, & Riermeijer, 2002).

Some have questioned the wisdom of seeking sexual partners online. For example, McFarlane et al. (2002) found that younger adults using the Internet to find a sexual partner were more likely to divulge personal information online and less likely to have been tested for sexually transmitted infections (STIs), compared to young adults who did not use the Internet to find partners. Bolding et al. (2006) surveyed men and women at an HIV testing clinic and found that both men and women reported having sought sexual partners online, including almost half of the gay men. Bolding et al. concluded that those who used the Internet to find sexual partners were more likely to engage in high-risk sexual behavior. It deserves noting that Bolding et al. also found that those engaging in high risk sexual behavior online were also engaging in risky

behavior offline. Hence, it may be that the Internet does not cause risky behavior but is a tool some individuals may use in pursuit of risky behavior.

Specific OSA: Viewing SEM

SEM is defined as audio or visual material intended to produce sexual arousal by depicting nudity and sexual behavior (Carroll et al. 2008; Peter & Valkenburg, 2008). Although SEM has not always been legal in the United States, the Internet has made SEM widely available. Erotic Internet sites offering pictures, videos and live-chatting, as well as online sex shops, are very common both nationally and internationally (Barak & Fisher, 2002; Griffiths, 2000). In 2002, it was suggested that roughly 50% of all Internet traffic was, in one way or another, related to sex, though those numbers vary (McNair, 2002; Quinn & Forsyth, 2005). For example, Bakker and Taalas (2007) documented that the word 'sex' found 619 million hits on Google. In May 2009 the number of hits was 750 million. Goodson, McCormick, and Evans (2000a) found that 43% of U.S. college students had viewed SEM at least once, with 3% viewing it often. Boies (2002) found that 40.1% of Canadian college students used the Internet to find SEM. More recently, Carroll et al. (2008) found that young American adults commonly view SEM online and offline. Specifically, 87% of men and 31% of women in their study admitted to using SEM. Such relative high prevalence rates of consumption highlight the role SEM seems to have in contemporary young adults' lives.

Research findings on the effects of exposure to SEM, irrespective of format, are complex (Barak, Fisher, Belfry, & Lashambe, 1999; Hald & Malamuth, 2008; Oddone-Paolucci, Genuis, & Violato, 2000). Some researchers assert the view that SEM may reduce the shame often associated with sexuality and sexual urges and that, as with all OSA, SEM can improve one's

offline sex life (Cooper et al., 2004; Feshback, 1955). Hald and Malamuth (2007) examined participant's perception about how SEM affects them and found that most individuals reported few, if any, negative consequences. Cooper et al. (1999) surveyed 9,177 participants who had used the Internet for sexual purposes at least once and found that the overwhelming majority (92%) did not consider their online behavior to be problematic. Much like Kinsey normalized people's sexual behavior in the 40's and 50's, sexually explicit material may have a normalizing role today. Sexually uncommon behavior is not necessarily pathological given that it is unlikely that a single standard for sexual expression exists (Rye & Meaney, 2007). Popovic (2006) argues that it is not a particular deviation from normal sexuality that creates problems in individuals, rather the guilt they experience from believing they have violated social norms. Viewing SEM may normalize some people's experiences and behaviors. In a more pathological form, SEM theoretically may also normalize more extreme forms of sexuality (child pornography, bestiality, etc). Yet, as stated, these forms of sexuality represent an extreme form of OSA, and are beyond the scope of this paper.

By contrast, others have argued SEM desensitizes people and negatively influences behavior and attitudes (Zillmann & Weaver, 1999). Many negative behaviors have been found to correlate with the viewing of SEM irrespective of the format. Some of these correlates include violence and aggression (Zillmann & Bryant, 1988), sexist views (Barak et al., 1999; Jensen, 1996), sexual offending (Bensimon, 2007), and moral corruption (McMurdo, 1997). Allen, D'Alessio, and Brezgel (1995) conducted a meta-analysis of laboratory studies examining the link between SEM consumption and aggression. They found a mild association between exposure and aggression, with the strongest correlation related to material depicting violence.

Malamuth, Addison, and Koss's (2000) found a similar association between material that was violent and sexual aggression. Oddone-Paolucci et al. (2000) found that the consumption of SEM is associated with sexual deviance. Nonetheless, it deserves noting that Bensimon (2007) provided a qualitative review of the literature on SEM and sexual offending and concluded that there is no conclusive causal link between the two.

It is likely that exposure to SEM both online and offline influences openness to sexuality and sex. For example, Zillmann and Bryant (1988) had college students watch 6 hours of SEM over several weeks. At the end of the study, it was found that those in the experimental condition, had, on average, more open views on sex than those in the control group. Carroll et al. (2008) examined 818 university students and found high rates of use of the SEM by both men and women. College women also were found to be more accepting of the material, even if they did not personally use the material. Acceptance of SEM correlated with liberal sexual attitudes. Carroll et al. suggest that preexisting values (i.e., liberal political or social orientation) likely influence whether people access SEM and engage in open sexual relations.

Specific OSA: First Exposure

SEM exposure to children and adolescents has received a fair amount of attention in both the social science literature and the media (Benedek & Brown, 1999; Griffiths, 2004). The concern over early exposure is related to the belief that early exposure to SEM might negatively influence attitudes, behavior and perhaps psychosocial development. For example, some clinicians have reported that clients with sexual compulsions report having viewed SEM at early ages (Boeis, Knudson & Young, 2004). Wolak, Mitchell, and Finkelhor (2007), in a telephone study of 1,500 10-17 year-olds with access to the Internet, found that 42% had been exposed to

SEM. Of those exposed to SEM, 66% reported that exposure was unwanted. Moreover, men with Internet access during adolescence reported younger ages for oral sex and sexual intercourse relative to comparable men without Internet access (Kraus & Russell, 2008). Women with Internet access during early adolescence also reported earlier sexual intercourse relative to comparable women without Internet access. In another study, Brown et al. (2006) studied correlates of four types of sexual media (magazines, music, television, and movies) content among 1,017 adolescents. Those who consumed the most amount of sexual material were more likely to engage in sexual intercourse at earlier ages. Some researchers have found the age of exposure to SEM was a predictor of later sexual sensation seeking (Perry, Accordini, & Hewes, 2007). Studies have also shown that age of exposure also appears to influence attitudes towards sex. Peter and Valkenburg (2006) found that among Dutch adolescents, exposure to SEM was correlated with recreational attitudes towards sex, though gender and perceived realism of the material played mediating roles. Brown and L'Engle (2009) also found that earlier exposure to SEM predicted more rigid gender roles. Peter and Valkenburg (2008) studied 962 Dutch adolescents and found that exposure to SEM was associated with higher levels of sexual preoccupancy. Their study suggests that SEM, irrespective of format, correlates with sexually-related attitudes (Zillmann & Bryant, 1988).

It is noted that in many of these studies, researchers assume an inherent problem related to adolescents engaging in any form of sexual activity. That view may be shared by many United States citizens. However, although most sexual activity, irrespective of participants' ages, carries risks, the concern over adolescent's sexuality may reflect people's personal moral and religious beliefs more than health concerns per se (Bleakley, Hennessy, & Fishbein, 2006; Santelli et al.,

2006). Industrialized countries that provide medically-based comprehensive sex education to children and adolescents (e.g., Denmark) tend to have lower rates of teenage pregnancy and STIs compared to U.S. adolescents despite having comparable rates of sexual activity among teenagers (Klein, 2005).

Specific OSA: Information Seeking

The Internet is a great source for sexually-related information, including critical information on safe-sex practices (Spink, Koricich, Jansen, & Cole, 2004). Given the Internet's accessibility and anonymity, some researchers (e.g., Barak & Fisher, 2002; Newman, 1997) have suggested that the Internet ought to play a larger role than it does currently in providing people with sex-related health information. Evidence suggests that many university students already utilize the Internet in pursuit of sexually-related information. College students appear to obtain more information about sex, contraceptives, and even information related to sexual identity from the Internet than from parents or peers (Escoffery et al., 2005; Sprecher, Harris, & Meyes, 2008). For example, among a sample of 506 U.S. college students, Goodson, McCormick, and Evans (2001) found that 56% of men and 35% of women reported using the Internet to obtain information related to sex and sexuality. Canadian students also avail themselves to the Internet to obtain sexually-related information, though possibly to a lesser degree. Among a sample of 760 Canadian students, Boies (2002) found that 21% reported using the Internet to obtain such information. All considered, the Internet has the potential to be a reliable, accurate source of information for questions related to sex, sexual health, and sexuality that is easy to access while affording privacy to those using it for this purpose.

OSA Cross-Culturally

Although U.S. citizens may produce and consume the majority of SEM, this material is consumed throughout the world (Mackay, 2001). However, SEM may not be consumed in the same manner. Countries vary in their acceptance of different forms of sexual activity (Gagnon & Simon, 1967). Culture influences how individuals perceive and experience sexuality. For example, the age of first sexual contact tends to occur later in Asia and Latin America than in Africa, Europe, and North America (Bozon & Kontula, 1998). Studying sexual expression in different countries sheds light on similarities and differences across cultures (Balderston & Guy, 1997). Most studies have either examined United States (Goodson et al., 2001), Canadian (Boies, 2002), European (Cooper, Månsson, Daneback, Tikkanen, & Ross, 2003) or Taiwanese samples (Lo & Wei, 2005). It would be of interest to examine other populations because it is possible that relatively sexually restrictive societies might have different patterns of OSA (Kettmann, 2001).

The Case of Peru

The United States and Peru have distinct cultures and histories. Yet, the two countries share similar, but unique ironies in the ways civil liberties and the acceptance of sexuality are manifested. The United States is a country that embraces civil liberties related to its democratic foundations. As a result, individual liberties are promoted, including the right to consume sexually-related materials and pursue sexual activity that involves consenting adults and does not violate local or state laws. Nonetheless, the United States overall holds relatively conservative views toward sex and sexuality perhaps because of its Judeo-Christian heritage. Different governmental, educational, and religious sectors commonly endeavor to regulate and discourage

sexual activity outside of marriage (e.g., abstinence-only sex education programs, programs designed to promote virginity until marriage, etc.) (see Klein, 2006 for a detailed discussion of this).

Peru's irony arguably has a somewhat different form. Similar to United States citizens, Peruvian citizens tend to hold socially conservative values—values that, in the case of Peru, have been influenced by traditional Catholic ideology (Caceres, Cueto, & Palomino, 2008). The Church guides the discussion of sexuality, creating stigma against contraceptives, sexual minorities and abortion (Caceres et al., 2008). Unlike the United States, however, contemporary Peruvian culture has developed from a mixture of Spanish and indigenous cultures. As a result, Peruvians may, on average, be somewhat more open to individual sexuality. Indigenous cultures throughout the Americas historically have fewer prohibitions against sex and sexuality relative to Western, Christian-based cultures (Tannahill, 1992). An example of this in Peru is the sexuality manifested in indigenous pottery and artwork that may be observed throughout Peru (Arguedas, 2005). Moreover, as common to various regions within Latin America (Falicov, 2008; Hernandez, 2005; Negy & Snyder, 2006), Peru likely tolerates a measured amount of male chauvinism that often includes dimensions of open sexuality, particularly among men (Mirande, 1997).

As a complicated result of male chauvinism and Catholic ideology in Latin America, sexual minorities in Peru generally are condemned socially (Friedman, 2007). Further, poverty and political instability have impeded the evolution of sexual and gender equality (Nesvig, 2001). In Peru, mere rumors of homosexuality are used to embarrass others (Caceres et al., 2008). Nonetheless, despite the general lack of visibility and acceptance of sexual minorities, the

quality of life for sexual minorities has improved some because of the pressure of activism, technology and globalization (Jitsuya & Sevilla, 2004). A popular Peruvian saying is that ‘God forgives sin, not scandal’ (Caceres et al., 2008, p. 154). This is perhaps not too dissimilar from the United States in that manifestations of sexuality are best preferred away from public view. Hence, the Internet provides a perfect outlet for sexual exploration and expression for both societies.

In Peru, most of the population’s access to the Internet is through public Internet cafes that offer both private and open booths for low fees and 24-hour access (Curioso, Blas, Nodell, Alva, & Kurth, 2007). By 2005, there were more than 10,000 Internet cafes in Peru, both in Lima and in poorer areas (Curioso et al., 2007). Some studies have found that people even use the private booths for sexual activity (Blas et al., 2006). Friedman (2007) found that Lesbians in Peru and other Latin American countries use the Internet for social networking. Peruvian gay men also use the Internet to locate partners (Blas et al., 2006; Ross, Rosser, & Stanton, 2004).

The Current Study

In a broad sense, this is an exploratory study designed to compare Internet usage for sexually-related purposes (e.g., OSA) between United States and Peruvian young adults. Studies of a cross-cultural nature—such as this one—are important because they provide an opportunity to determine if what is learned from studies conducted with participants in one culture (e.g., the United States) generalize to participants in other cultures (e.g., Peru) (Arnett, 2008; Funder, 2006). Cross-cultural comparisons also may provide additional insight into nuanced differences that underlie the behavior in question as a function of the culture or other relevant variables in which the behavior occurs. At a more specific level, I hope to distill and possibly clarify the role

of other relevant variables that might shed light on the two cultural groups' potentially discrepant levels of OSA.

Hypotheses

It is hypothesized that U.S. young adults would engage in OSA significantly more than Peruvian young adults. This hypothesis is based on various considerations. Computers and access to the Internet appear to be more accessible to residents in the United States than in Peru. Convenient and increased access to the Internet ought to facilitate young adults' higher likelihood of using the Internet for both general and sex-related purposes. Also, as discussed previously, the United States generally promotes individual liberties and rights more than Peru, including the right to consume SEM that involves consenting adults. Thus, young adults in the United States likely take advantage of this heightened sense of freedom to engage in OSA relative to Peruvian young adults. This freedom also relates to increased access to computers. Peruvian college students—similar to many Latin American young adults in general (e.g., Falicov, 2005)—are more likely live in their parents' home while attending college compared to United States college students, again providing U.S. young adults more independence in the form of privacy to explore SEM.

It also is hypothesized that men—irrespective of nationality—would report significantly more OSA than women. As previous studies consistently have shown, men engage in OSA and consume more SEM than women (Carroll et al., 2008; Goodson et al., 2001).

Finally, it was expected, though not formally hypothesized, that OSA would minimally, if at all, be linked with maladjustment. More specifically, if OSA is found to be associated with indices of maladjustment and problematic behaviors as other studies have suggested, I predicted

that usage of the Internet for general, non-sexually related purposes also would be associated with poor psychological adjustment and problematic behaviors. Stated differently, I expected that relatively high (i.e., excessive) usage of the Internet for any purpose—sexual or otherwise—would be associated with less psychological adjustment and more problematic behaviors. For this study, psychological adjustment was operationalized as relatively elevated scores on a global measure of adjustment (measuring symptoms of anxiety, depression, and somatization), self-esteem, and loneliness. Problematic behaviors were defined by negative consequences from high levels of Internet usage, such as neglecting family responsibilities, problems at the job, etc.

Because this study is largely exploratory, additional variables were assessed in order to glean additional insight about potential correlates of OSA, as well as to possibly elucidate their role, if any, in accounting for cross-national differences in Internet usage. They included a set of family and support-related variables (measuring parent-child communication about sex, level of cohesion and conflict in participants' families-of-origins, and perceived social support from family, friends, and significant others), as well as a set of personality constructs (liberalism-conservatism, religiosity, and erotophilia-erotophobia). Inclusion of these latter two sets of variables was intended to elucidate their potential moderating role in accounting for potential between-group differences (between United States and Peruvians) in OSA as well as for potential correlations between OSA and psychological adjustment.

CHAPTER THREE: METHODOLOGY

Participants

Participants included 320 undergraduate students (195 females, 125 males) attending a comprehensive, public university in the southeastern region of the U.S. and 136 undergraduate students (37 females, 99 males) attending a relatively comparable university in Lima, Peru. The mean ages of the U.S. and Peruvian samples = 18.6 and 21.3 (*SDs* = .52 and 2.79), respectively. Regarding ethnicity, participants in the U.S. sample self-identified as the following: 206 non-Hispanic Whites, 39 Hispanics/Latinos/as, 35 African Americans, 22 Asian Americans, and 13 as “other.” All Peruvian participants self-reported their ethnicity to be of Peruvian origin. Regarding class standing, among the U.S. sample, there were 265 freshmen, 28 sophomores, 16 juniors, and 11 seniors. Among Peruvians, there were 24 freshmen, 43 sophomores, 28 juniors, and 37 seniors. Finally, among the U.S. sample, 78% of the participants’ fathers and mothers had at least one year of college, where as 61% of the Peruvian participants’ fathers and 53% of their mothers had at least one year of college.

Measures

Consistent with the Brislin (1970) technique for translating questionnaires into a new language, a bilingual (English-Spanish), bicultural researcher initially translated all questionnaires into Spanish. Then, an independent bilingual, bicultural researcher translated the Spanish version of the questionnaires back into English. Afterwards, a team of four bilingual, bicultural researchers examined and compared the English-translated version with the original English version in order to address and resolve inconsistencies in translations. As an additional

safety measure to insure appropriate translation of items, before administration of the Spanish version to Peruvian participants, a Peruvian professor of psychology at the institution where this study took place reviewed the version for a final round of modifications. All participants completed the following questionnaires.

Demographic sheet. Participants indicated their age, gender, ethnicity, religious affiliation, and current residential status (i.e., with whom they live). Participants also were asked to indicate their sexual orientation, and if they had ever taken a course in human sexuality. Moreover, participants were asked to report the approximate age they first engaged in any form of sexual activity, their life time number of sexual partners, and if they have accessed (viewed or read) sexually explicit material offline (e.g., magazines, videos).

Internet Usage Scale for Sexual Purposes-Modified (Goodson, McCormick & Evans, 2000b). In order to assess participants' online sexual activities, a modified version of the survey by Goodson et al. was used. The modified scale measured participants' use of the Internet for sexual-related information seeking, seeking out partners online, and viewing SEM. Those three domains are based on the utility subscales of the study by Goodson et al. with some items being modified to refer to attitudes consistent with the current study. Moreover, some items were created because they were deemed to best assess behavior and attitudes pertinent to the study. This instrument yields four scores for usage of the Internet for OSA: one for each of the three domains, and a total score. Participants respond to statements using a 4-point Likert-type scale with response options ranging from 1 (Never) to 4 (Frequently) across all three domains. The scores for the subscales and total score range from 1 to 4, with higher scores indicating more usage of using the Internet usage for sexual purposes. For the English questionnaire, the

Cronbach reliability alphas were acceptable for the three subscales: information seeking (.88), finding partners online (.70), and viewing SEM (.89). For the Spanish questionnaire, the Cronbach reliability alphas were also found to be acceptable for the three subscales: information seeking (.80), finding partners online (.84), and viewing SEM (.79).

General Internet Usage Scale. This scale was developed by the present author to measure participants' use of the Internet for non-sexual purposes. The development of items was guided by the study of Nie and Erbring (2000) which identified the most common non-sexual online activities. Six items measure the participants' use of the Internet for non-sexual entertainment, communication with friends and family, general information seeking, gaming, and seeking out new friends. Participants respond to statements using a 4-point Likert-type scale with response options ranging from 1 (Never) to 4 (Frequently). A total score is obtained by adding the responses to each item and dividing by the number of items. Higher scores reflect greater usage of the Internet for general, non-sexually related purposes. The Cronbach reliability alphas were .45 (English questionnaire), and .57 (Spanish questionnaire). These alpha values generally are considered unacceptable against traditional psychometric standards (Tabachnik & Fidel, 2007). However, such alpha values are somewhat common when items assess relatively distinct behaviors despite forming part of the same scale (Clark & Watson, 1985; Cortina, 1993). Because my goal was to ascertain the degree to which participants used the Internet for any non-sexually related purposes, I elected to retain the scale and used an overall Internet usage score for analysis purposes.

Internet Related Problems Scale (IRPS; Widyanto, Griffiths, Brunsten & McMurran, 2008). This 20-item scale assesses general problems related to using the Internet. The scale is

based on DSM-IV criteria for substance abuse. Participants respond to statements using a 5-point Likert-type scale with response options ranging from 5 (Strongly agree) to 1 (Strongly disagree). Higher scores reflect the participants' view that Internet usage has led to problematic consequences. A sample item is: "I have given up some of my social and leisure time so I can spend more time on the net." The Cronbach reliability alphas were .80 (English questionnaire), and .64 (Spanish questionnaire).

The Brief Symptom Inventory-18 (BSI-18; Derogatis, 2000). This is a shortened version of the 53-item BSI (Derogatis, 1993), which was based on the original 90-item Symptom Checklist-90-Revised (SCL-90-R Derogatis, 1994). The BSI-18 assesses symptoms of three dimensions of psychological distress: somatization, anxiety and depression. Participants respond to the questions using a 5-point Likert-type format corresponding to their level of agreement with statements ranging from 0 (Not at all) to 4 (Extremely). A total score (the global severity index [GSI]) has been recommended for usage over the subscale scores due to inconsistent findings from factor analyses; consequently, I used the GSI for data analyses (see Asner-Self, Schreiber, and Marotta [2006]). The Cronbach reliability alphas were .91 (English questionnaire), and .74 (Spanish questionnaire).

UCLA Loneliness Scale-3 (Russell, 1996). This scale assesses respondents' level of loneliness as defined by a discrepancy between actual and desired social contract (Russell, 1996). Participants respond to the twenty questions using a 4-point Likert-type format corresponding to their level of agreement with the statements ranging from 1 (Never) to 4 (Always). An example item is: "How often do you feel that you lack companionship?" Higher scores indicate more loneliness. The Cronbach reliability alphas were .93 (English

questionnaire), and .58 (Spanish questionnaire). It is noted here that the alpha value for the Spanish version of this instrument is marginally acceptable. As a result, findings related to this instrument should be viewed accordingly.

Rosenburg Self-Esteem Scale (RSE; Rosenberg, 1979). Participants' self-esteem was assessed with this 10-item scale on which they indicate their level of agreement with the statements using a 4-point Likert-type scale. Response options ranged from 1 (Strongly agree) to 4 (Strongly disagree); higher scores reflect higher self-esteem. An example item is: "At times I think I am no good at all." The Cronbach reliability alphas were .86 (English questionnaire), and .86 (Spanish questionnaire).

Openness of Sexual Communication Scale (OSCA; Lehr, Dilorio, Dudely & Lipana, 2000). This scale measures perceived openness of communication about sex and sex-related topics with parents. Each of the 8-items is scored on a 5-item Likert-type scale with response options ranging from 1 (Strongly disagree) to 5 (Strongly agree). Items are evenly divided in terms of being in reference to communication with the respondent's mother and father, respectively. Although communication scores may be obtained in reference to each parent, a total score also may be used by summing responses for all the items and dividing by 8. Total scores range from 1 to 5 with higher scores indicating more open parental communication about sex. A sample item is: "As I was growing up, my mother gave me sexual information in a nonjudgmental way." The Cronbach reliability alphas were .88 (English questionnaire), and .73 (Spanish questionnaire).

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988). This scale measures participants' perception of support from family friends and

significant others. Each of the 12-items is scored on 7-point Likert-type scale ranging from 1 (Very strongly disagree) to 7 (Very strongly agree) with higher scores indicating more perceived support. An example item is: “There is a special person in my life who cares about my feelings.” For this study, I used a total scored based on all the items combined. The Cronbach reliability alphas were .93 (English questionnaire), and .95 (Spanish questionnaire).

Family Environment Scale (FES; Moos, 1974). The FES is a 90-item, true-false self-report measure intended to assess the actual, preferred, or expected social environment of families. The FES contains ten subscales assessing three sets of underlying domains or dimensions related to the respondent’s family social climate. For the present study, two subscales, *Cohesion* and *Conflict*, from the Relationship dimensions were administered to participants. These 18-items assess the degree of commitment, help, and support family members provide to one another, and the degree of conflicts occurring within the family. For this study, items were written in reference to respondents’ families of origin, thereby requiring participants to rate their family environment retrospectively. Negy and Snyder (2006) have garnered evidence for the psychometric appropriateness of the FES when used in this manner. Based on the current sample of participants, Cronbach reliability alphas based on combining the 18 items were .79 (English questionnaire), and .66 (Spanish questionnaire).

Liberal-Conservative Scale (Mehrabian, 1996). Participants’ political leaning was measured with 7-items assessing their level of agreement with Liberalism or Conservatism. Each of the 7- items is scored on a 5-point Likert-type scale ranging from 1 (Strongly disagree) to 5 (Strong agree). An example of one of the items is: “The major national media are too left-wing for my taste.” Item 2 was modified, with the words Republican and Democrat changed to

Conservative and Liberal, respectively, to make the question applicable to Peruvians. The Cronbach reliability alphas were .85 (English questionnaire), and .29 (Spanish questionnaire). Because the unacceptably low alpha obtained on the Spanish version, this scale was not included in any of the study's analyses.

Religiosity (Batson, Schoenrade, & Ventis, 1993). To measure religiosity, participants responded to the nine items forming the Intrinsic subscale of the religiosity scale created by Batson (1976; Batson, Schoenrade, & Ventis, 1993). The original scale developed by Batson measured three constructs related to believing in and practicing a religion. They were labeled Intrinsic (believing in a religion in order to obtain meaning and purpose in life), Extrinsic (using religion for self-serving goals, such as social purposes, or a diversion), and Quest (viewing religion as an ongoing process of questioning the tenets of life). I administered only items forming the Intrinsic scale because, as suggested by Batson, they appear to measure individuals' commitment and internal reasons for believing in a religion. An example of an item is "My religious development is a natural response to our innate need for devotion to God." Items are responded to using a 5-item Likert-type scale, with response options ranging from Strongly Disagree to Strongly Agree. Higher scores reflect higher commitment to a religion. The Cronbach reliability alphas were .93 (English questionnaire), and .75 (Spanish questionnaire).

Sexual Opinion Survey (SOS; Fisher, Byrne, White, & Kelley, 1988). To measure openness to sex and sexuality, participants completed the SOS. This is a 21-item questionnaire to which participants indicate their agreement with statements using a 7-point Likert-type scale, with response options ranging from "Strongly agree" to "Strongly disagree." Total scores range from 1 to 7, with higher scores reflecting erotophobia-a relative absence of comfort or interest in

sexually related topics and activities, whereas lower scores reflect erotophilia-the tendency to be comfortable with and have an interest in sexually related topics and activities. A sample item is “I personally find that thinking about sexual intercourse is arousing.” The Cronbach reliability alphas were .90 (English questionnaire), and .63 (Spanish questionnaire).

Marlowe-Crowne Social Desirability Scale–Short Form (M-C SDS-SF; Reynolds, 1982). Participants’ need to be perceived in a positive light was measured with the 13-item M-C SDS-SF. This scale is a True-False abbreviated version of the M-C SDS (Reynolds, 1982). A sample item is “No matter who I’m talking to, I’m always a good listener.” Higher scores reflect a greater tendency to respond to test items in a socially desirable manner. The Tetrachoric r were .66 (English questionnaire), and .45 (Spanish questionnaire). The reliability estimate for the Spanish version of the MC-SDS-sf is less than what is considered acceptable in accordance with traditional psychometric standards (Tabachnic & Fidell, 2007).

Procedure

The questionnaire packets were distributed to willing participants enrolled in a wide-range of Psychology classes at the two respective institutions. All students who were present in class agreed to participate. At least one of the researchers was present during administration to answer relevant questions participants may have had about the study or questionnaires. All questionnaires were completed during class time. The questionnaires took about 45 minutes to complete.

CHAPTER FOUR: RESULTS

Hypothesis One (Comparing National Groups on OSA)

It was hypothesized that U.S. young adults would engage in OSA significantly more than Peruvian young adults. To test this hypothesis, a multivariate analysis of covariance (MANCOVA) was performed on the data. The independent variables (IVs) were nationality (United States vs. Peruvian) and gender. The dependent variables (DVs) were the three subscales from the *Internet Usage Scale for Sexual Purposes-Modified* that assess using the Internet for sexually explicit material (SEM), for pursuing sexual relationships, and seeking out sex-related information. Table 1 shows the means and standard deviations of OSA for nationality and gender. Response options for all statements on the OSA subscales ranged from 1 (Never) to 4 (Frequently). Social desirability (as measured by M-C-SDS) was included as a covariate. Due to significant differences in age among the nations, age was also entered as a covariate.

Nationality was associated with a significant effect on the dependent variables (using Wilks' Lambda, $F [3, 440] = 15.993, p < .001$, partial $\eta^2 = .098$). Contrary to prediction, univariate tests indicated that Peruvian young adults reported using the Internet significantly more for sex-related information seeking ($M = 2.54, SD = .54$) than U.S. young adults ($M = 2.13, SD = .52$), $F (1, 442) = 20.76, p < .001$, partial $\eta^2 = .065$. In absolute terms (using the response options as guidelines), the mean score for sex-related information seeking suggests that Peruvian young adults sometime use the Internet to find sex-related information, whereas U.S. young adults do so rarely. Peruvian young adults also reported using the Internet significantly more for seeking sexual partners ($M = 2.13, SD = .74$) than U.S. young adults ($M = 1.73, SD = .69$), $F (1, 442) = 25.52, p < .001$, partial $\eta^2 = .055$. In absolute terms, the mean score for seeking sexual

partners hovered around the “rarely” response option for both groups. Finally, Peruvian young adults reported using the Internet significantly more for viewing SEM ($M = 2.70$, $SD = .69$) than U.S. young adults ($M = 2.14$, $SD = .84$), $F(1, 442) = 17.26$, $p < .001$, partial $\eta^2 = .038$. In absolute terms, the mean scores suggest that Peruvians sometime use the Internet for SEM, whereas U.S. young adults do so rarely.

Hypothesis Two (Comparing Genders on OSA)

It also was hypothesized that men—irrespective of nationality—would engage in OSA more than women. The data supported the hypothesis. Gender was associated with a significant effect on the dependent variables ($F[3, 440] = 10.60$, $p < .001$, partial $\eta^2 = .067$). Univariate tests indicated that men reported consuming significantly more SEM on the Internet ($M = 2.67$, $SD = .71$) than women ($M = 1.96$, $SD = .81$), $F(1, 442) = 23.26$, $p < .001$, partial $\eta^2 = .050$). In absolute terms, the mean scores suggest that men use the Internet for viewing SEM sometimes, whereas women rarely use the Internet for that purpose.

There was a significant interaction effect between nationality and gender on the dependent variables ($F[3, 440] = 16.20$, $p < .001$, partial $\eta^2 = .067$). Peruvian women reported using the Internet to find sexual partners ($M = 2.49$, $SD = .64$) significantly more than U.S. women ($M = 1.58$, $SD = .58$), $F(1, 442) = 28.18$, $p < .001$, partial $\eta^2 = .060$. Also, Peruvian women viewed significantly more SEM on the Internet ($M = 2.75$, $SD = .50$) than United States women ($M = 1.80$, $SD = .77$), $F(1, 442) = 30.417$, $p < .001$, partial $\eta^2 = .064$.

Examining National Differences on OSA with Covariates

To examine if any of the additional study variables might account for the obtained national differences in OSA, initially a multivariate analysis of variance (MANOVA) was performed on the data to determine if U.S. and Peruvian young adults differed on any of the study variables. The IV was nationality (United States vs. Peruvian). The DVs were religiosity, family environment (family cohesion and conflict), perceived social support, erotophobia/erotophilia, and perception of their childhood family's openness to discuss sexual matters. Social desirability and age were included as covariates. Means and standard deviations of these study variables for both Peruvian and U.S. young adults are listed in Table 2. Response options for religiosity, openness of sexual communication, and political orientation ranged from 1 (Strongly Disagree) to 5 (Strongly Agree), with the response of 3 indicating "uncertain." Response options for erotophobia/erotophilia, and perceived social support ranged from 1 (Very Strongly Disagree) to 7 (Very Strongly Agree), with the response of 4 indicating "neither agree nor disagree."

Overall, nationality was associated with a significant effect on the dependent variables ($F [6, 434] = 17.32, p < .001$, partial $\eta^2 = .193$). Peruvian young adults reported perceiving their childhood families as being significantly more open to discussing sexual matters ($M = 3.29, SD = .97$) than U.S. young adults ($M = 2.71, SD = .94$), $F (1, 439) = 23.95, p < .001$, partial $\eta^2 = .052$, but also reported having significantly higher levels of erotophobia ($M = 4.02, SD = .83$) than U.S. young adults ($M = 3.60, SD = 1.01$), $F (1, 439) = 10.00, p < .05$, partial $\eta^2 = .022$. In absolute terms (using response options as guidelines), the mean scores suggest that, on average, both Peruvian and U.S. young adults reported their parents moderately discussed sexual matters

with them. For erotophobia, in absolute terms, the mean score suggests that both U.S. and Peruvian young adults scored in the middle range on the construct of erotophilia-erotophobia.

Moreover, U.S. young adults reported being significantly more religious ($M = 3.26$, $SD = .98$), than Peruvian young adults ($M = 2.81$, $SD = .67$), $F(1, 439) = 13.24$, $p < .001$, partial $\eta^2 = .029$, and having more perceived social support ($M = 5.65$, $SD = .90$) than Peruvian young adults ($M = 4.9$, $SD = .12$), $F(1, 439) = 37.35$, $p < .001$, partial $\eta^2 = .078$. In absolute terms, the mean scores suggest that both U.S. and Peruvian are moderately religious. Moreover, in absolute terms, Peruvian young adults, on average, indicated they perceive that they have moderate levels of social support, whereas U.S. young adults, on average, indicated that they perceived they have a fairly high level of social support.

Given that the two national groups differed significantly on four of the study variables, a MANCOVA was performed with nationality as the IV and the three OSA subscales as the DVs. Religiosity, social support, erotophobia/erotophilia, and perception of their childhood family's openness to discuss sexual matters were entered as covariates. Social desirability and age were also entered as a covariate. Nationality continued to be associated significantly with an effect on the DVs ($F[3, 432] = 18.51$, $p < .001$, partial $\eta^2 = .114$). Consistent with results prior to controlling for covariates, univariate tests indicated that Peruvian young adults use the Internet significantly more than U.S. young adults for SEM ($F[1, 434] = 25.89$, $p < .001$, partial $\eta^2 = .056$), sexual partner seeking ($F[1, 434] = 12.48$, $p < .001$, partial $\eta^2 = .028$), and for sexual-information seeking ($F[1, 434] = 39.79$, $p < .001$, partial $\eta^2 = .084$).

Examining Gender Differences on OSA with Covariates

To examine if any of the additional study variables might account for the obtained gender differences in OSA, initially a MANOVA was performed on the data to determine if men and women differed on any of the study variables. The IV was gender. The DVs were religiosity, family cohesion and conflict, perceived social support, erotophobia/erotophilia, and perceptions of their childhood family's openness to discuss sexual matters. Social desirability was included as a covariate. Gender was associated with a significant effect on the dependent variables ($F [6, 434] = 8.31, p < .001, \text{partial } \eta^2 = .103$). Univariate tests indicated that women were significantly more religious ($M = 3.31, SD = .91$) than men ($M = 2.94, SD = .92$), $F (1, 439) = 18.35, p < .001$, $\text{partial } \eta^2 = .040$, were significantly more erotophobic ($M = 3.86, SD = .97$) than men ($M = 3.65, SD = .92$), $F (1, 439) = 6.83, p < .05$, $\text{partial } \eta^2 = .015$, and they reported that their childhood families were significantly more open about sexual matters ($M = 3.07, SD = .98$) than were men's childhood families ($M = 2.71, SD = .97$), $F (1, 439) = 12.93, p < .001$, $\text{partial } \eta^2 = .029$. In absolute terms, the mean scores for both genders suggest that women and men are moderately religious. For erotophobia, the mean scores suggested that both women and men scored in the middle range on the erotophilia-erotophobia continuum. Both genders also indicated a medium level of openness to discuss sex with their families of origin.

Given that men and women differed significantly on three of the study variables, a MANCOVA was performed with gender as the IV and the three OSA subscales as the DVs. Religiosity, erotophobia/erotophilia, and perception of their childhood family's openness to discuss sexual matters were entered as covariates. Social desirability and age were also entered as a covariate. Gender was still associated with a significant effect on the dependent

variables ($F [3, 436] = 26.66, p < .001$, partial $\eta^2 = .155$). Similar to previous results without the use of covariates, univariate test indicated that men reported consuming significantly more SEM on the Internet than women ($F [1, 438] = 67.77, p < .001$, partial $\eta^2 = .134$). However, unlike previous results without the use of covariates, with the use of covariates, men's usage of the Internet to find sexual partners was statistically significantly higher than women's usage of the Internet for that purpose ($F [1, 438] = 4.22, p < .05$, partial $\eta^2 = .010$).

OSA and Study Variables

To examine how additional study variables might be related to OSA, a series of zero-order correlations were calculated separately by nationality to assess the associations between the three components of OSA and the following variables: religiosity, family openness to discuss sexuality, social support, family cohesion and conflict, and erotophobia/erotophilia. U.S. young adults who reported using the Internet to seek out sex-related information reported being less religious, $r (319) = -.26, p < .001$, having less social support, $r (320) = -.14, p < .05$, having more family conflict, $r (318) = .21, p < .001$, and being more erotophilic, $r (317) = -.48, p < .001$. U.S. young adults who reported using the Internet to find sexual partners reported having less family cohesion, $r (320) = -.12, p < .05$, and being more erotophilic, $r (317) = -.37, p < .001$. Moreover, U.S. young adults who reported using the Internet for SEM reported being less religious, $r (320) = -.28, p < .05$, having less social support, $r (320) = -.20, p < .001$, and being more erotophilic, $r (317) = -.64, p < .001$ (see Table 3).

By contrast, Peruvian young adults who reported using the Internet to seek out sex-related information reported having less family cohesion, $r (135) = -.20, p < .05$. Those who

reported using the Internet for finding sexual partners reported having less family cohesion, $r(136) = -.22, p < .05$. Peruvians who reported using the Internet for viewing SEM reported being less religious, $r(136) = -.19, p < .05$ (see Table 4).

Moderation Analysis: Nationality

Due to the consistency in MANCOVA results with and without the study covariates, the moderating role of several of the study variables that differed across the samples from the two different nations examined in this study (i.e., family conflict, sexual openness of childhood family, political orientation, religiosity, perceived social support, and erotophilia/erotophobia) in the association between nationality and OSA were examined. Hierarchical regression was used to examine the presence of moderators (Frazier, Tix, & Barron, 2004). Categorical variables were dummy coded, and continuous variables were centered (Frazier et al.). In block one, nationality and the proposed moderators (i.e., family cohesion, sexual openness of childhood family, religiosity, perceived social support, and erotophilia/erotophobia) were entered. In block two, the interactions of nationality and the potential moderators (e.g., nationality X family cohesion) were entered. A moderator effect was noted with a significant interaction term and an increase in R^2 (Baron & Kenny, 1986).

With regard to seeking out sex-related information (see Table 5), block one in the hierarchical regression equation was significant, $F(7, 439) = 20.61, p < .001$, with nationality ($p < .001$), family conflict ($p < .05$), perceived social support ($p < .05$), and erotophilia ($p < .001$) serving as significant predictors. In block two, the hierarchical regression remained significant, $F(13, 433) = 12.38, p < .001$, with family cohesion ($p < .05$), family conflict ($p < .05$), perceived social support ($p < .05$), erotophilia ($p < .05$) and the interaction between nationality and family

cohesion ($p < .05$), and the interaction between nationality and perceived social support ($p < .05$) serving as significant predictors and producing a significant increase in R^2 . To investigate these interactions, median splits were performed on family cohesion and social support across nations. With social support, an ANOVA found that there was significant differences among the groups, $F(3, 447) = 31.83, p < .001$, partial $\eta^2 = .180$. Scheffe post hoc comparisons indicated that U.S. young adults with lower social support were significantly more likely to use the Internet to seek out sex-related information ($M = 3.25, SD = .71$) than U.S. young adults with higher social support ($M = 2.63, SD = .71$). With family cohesion, an ANOVA found that there were significant differences among the groups, $F(3, 451) = 10.63, p < .001$, partial $\eta^2 = .066$. Scheffe post hoc comparisons indicated that U.S. young adults with lower family cohesion were significantly more likely to use the Internet to seek out sex-related information ($M = 3.09, SD = .77$) than U.S. young adults with higher family cohesion ($M = 2.87, SD = .76$).

With regard to seeking out sexual partners (see Table 6), block one in the hierarchical regression equation was significant, $F(7, 441) = 13.00, p < .001$, with nationality ($p < .001$), perceived social support ($p < .05$), and erotophilia ($p < .001$) serving as significant predictors. In block two, the hierarchical regression remained significant, $F(13, 435) = 7.70, p < .001$, with social support ($p < .05$) serving as a significant predictor, and producing a significant increase in R^2 . None of the interaction terms were significant.

With regard to viewing SEM (see Table 7), block one in the hierarchical regression equation was significant, $F(7, 441) = 27.49, p < .001$, with nationality ($p < .001$), religiosity ($p < .05$), perceived social support ($p < .001$), and erotophobia ($p < .001$), serving as significant predictors. In block two, the hierarchical regression remained significant, $F(13, 435) = 23.57, p$

< .001, with perceived social support ($p < .001$), the interaction between nationality and erotophobia ($p < .001$), and the interaction between nationality and perceived social support ($p < .001$) serving as significant predictors, and producing a significant increase in R^2 . Median splits were performed to investigate each interaction. With erotophobia, an ANOVA found that there were significant differences among the groups, $F(3, 447) = 68.48, p < .001$, partial $\eta^2 = .315$. Scheffe post hoc comparisons indicated that U.S. young adults with lower erotophobia were significantly more likely to use the Internet to view SEM ($M = 2.55, SD = .76$) than U.S. young adults with higher erotophobia ($M = 1.58, SD = .63$). With regard to perceived social support, an ANOVA found that there were significant differences among the groups, $F(3, 442) = 20.69, p < .001$, partial $\eta^2 = .123$. Scheffe post hoc comparisons indicated that U.S. young adults with lower perceived social support were significantly more likely to use the Internet to view SEM ($M = 2.37, SD = .83$) than U.S. young adults with higher erotophobia ($M = 2.01, SD = .85$).

Moderation Analysis: Gender

Due to the consistency in MANCOVA gender results with and without the study covariates, the moderating role of several of the study variables that differed across genders (i.e., sexual openness of childhood family, religiosity, and erotophilia/erotophobia) in the association between gender and OSA were examined. Hierarchical regression was used to examine the presence of moderators (Frazier et al., 2004). Categorical variables were dummy coded, and continuous variables were centered (Frazier et al.). In block one, gender and the proposed moderators (sexual openness of childhood family, religiosity, and erotophilia/erotophobia) were entered. In block two, the interactions of the previous variables were entered (e.g., gender X

religiosity). A moderator effect was noted with a significant interaction term and an increase in R^2 (Baron & Kenny, 1986).

With regard to sex-related information seeking (see Table 8), block one in the hierarchical regression equation was significant, $F(4, 445) = 26.14, p < .001$, with erotophilia ($p < .001$) serving as significant predictor. In block two, the hierarchical regression remained significant, $F(7, 442) = 15.54, p < .001$, with sexual openness of childhood family ($p < .05$), and erotophobia ($p < .001$) serving as significant predictors, and producing a significant increase in R^2 . None of the interaction terms were significant.

With regard to finding a sexual partner online (see Table 9), block one in the hierarchical regression equation was significant, $F(4, 445) = 12.13, p < .001$, with gender ($p < .05$), sexual openness of childhood family ($p < .001$), erotophobia ($p < .001$), and religiosity ($p < .05$) serving as significant predictors. In block two, the hierarchical regression remained significant, $F(7, 442) = 7.03, p < .001$, with gender ($p < .05$), and erotophobia ($p < .001$) serving as significant predictors, and producing a significant increase in R^2 . None of the interaction terms were significant.

Finally, with regard to viewing SEM (see Table 10), block one in the hierarchical regression equation was significant, $F(4, 445) = 49.67, p < .001$, with gender ($p < .001$), religiosity ($p < .001$), and erotophobia ($p < .001$), serving as significant predictors. In block two, the hierarchical regression remained significant, $F(7, 442) = 31.63, p < .001$, with gender ($p < .001$), erotophobia ($p < .001$), and the interaction between gender and erotophobia ($p < .001$) serving as significant predictors and producing a significant increase in R^2 . To investigate this interaction, a median split was performed on erotophobia across genders. An ANOVA found that

there was significant differences among the groups, $F(3, 447) = 68.48, p < .001$, partial $\eta^2 = .315$. Scheffe post hoc comparisons indicated that women who were relatively less erotophobic ($M = 2.79, SD = .57$) were significantly more likely to use the Internet to view SEM than women who were relatively more erotophobic ($M = 1.67, SD = .80$). Less erotophobic men ($M = 2.26, SD = .76$) also were significantly more likely to use the Internet to view SEM than men who were relatively more erotophobic ($M = 1.68, SD = .80$).

Exploratory Hypothesis (OSA and Maladjustment)

It was expected, but not formally hypothesized, that OSA would minimally, if at all, be linked with maladjustment. In order to explore the association between OSA and maladjustment, participants who reported engaging in OSA were compared with those who reported not having engaged in OSA on four indices of maladjustment (the BSI-18, self-esteem, loneliness, and Internet-related problems). The comparisons were made separately for the four participant groups (U.S. men, U.S. women, Peruvian men, Peruvian women). To control for Type 1 error due to multiple comparisons, a Bonferoni adjustment was made to the alpha level for 16 total comparisons. The new alpha level is .003 (.05/16). Table 11 shows means and standard deviations on the maladjustment indices for the four participant groups as a function of usage category (i.e., user vs. non-user). None of the 16 comparisons were significantly different.

To determine if high versus low-users of the Internet for sexually-related purposes would differ on indices of maladjustment, median splits were made to create two groups: those who engaged in OSA a relatively high amount versus those who engaged in OSA a relatively low amount. The median splits were done separately for the four participant groups, and the high versus low participant groups were compared on the indices of maladjustment (BSI-18, self-

esteem, loneliness, and Internet-related problems). Table 12 shows the means and standard deviations on the maladjustment indices for the four participant groups as a function of usage category (high vs. low). None of the 16 comparisons were significantly different.

To determine if high versus low-users of the Internet for general (non-sexual) purposes would differ on indices of maladjustment, median splits were made to create two groups: those who used the Internet (for general purposes) a relatively high amount versus those who used the Internet a relatively low amount. The median splits were done separately for the four participant groups, and the high-versus low-participant groups were compared on the indices of maladjustment (BSI-18, self-esteem, loneliness, and Internet-related problems). Table 13 shows the means and standard deviations on the maladjustment indices for the four participant groups as a function of usage category (high vs. low). Out of 16 comparisons, one achieved statistical significance. Among U.S. women, high users had relatively more Internet-related problems ($M = 2.40$; $SD = .52$) than low users ($M = 2.15$; $SD = .54$), $t(191) = -3.25$, $p < .001$.

As a final approach to exploring any link between OSA and maladjustment, a series of zero-order correlations were calculated to assess the associations between OSA, measures of psychological adjustment (i.e., scores on the BSI-18, loneliness, self-esteem), Internet-related problems, and sexual satisfaction for each national group. For the U.S. young adults (see Table 14), seeking sex-related information online correlated significantly with Internet-related problems ($r[318] = .16$, $p < .001$), the BSI-18 ($r[317] = .13$, $p < .001$), and loneliness ($r[317] = .23$, $p < .001$). Using the Internet for finding sexual partners correlated significantly with loneliness ($r[317] = .18$, $p < .001$), Internet-related problems ($r[318] = .28$, $p < .001$), and less sexual satisfaction ($r[320] = -.27$, $p < .001$). Viewing SEM on the Internet correlated

significantly with loneliness ($r [320] = .22, p < .001$), Internet-related problems ($r [318] = .15, p < .001$), and less sexual satisfaction ($r [320] = -.12, p < .05$). Finally, overall time spent online for sexual purposes (i.e., for the three OSA components combined) correlated significantly with Internet-related problems ($r [318] = .15, p < .001$), and the BSI-18 ($r [319] = .15, p < .001$). For U.S. young adults, using the Internet for general purposes did not correlate significantly with any maladjustment measure; however, overall time spent online for general purposes correlated significantly with Internet-related problems ($r [318] = .17, p < .001$), the BSI-18 ($r [318] = .12, p < .001$), loneliness ($r [317] = .13, p < .001$), and low self-esteem ($r [316] = -.13, p < .001$).

For Peruvian young adults (see Table 15), using the Internet for seeking out sexual partners online correlated significantly with loneliness ($r [136] = .24, p < .001$), Internet-related problems ($r [136] = .35, p < .001$), and low self-esteem ($r [136] = -.20, p < .05$). Further, overall time spent online for sexual purposes correlated significantly with Internet-related problems ($r [136] = .21, p < .05$). For Peruvian young adults, using the Internet for general purposes did not correlate significantly with any maladjustment measure; however, overall time spent online for general purposes correlated significantly with loneliness ($r [136] = .36, p < .001$).

With the exception of the correlation between using the Internet for seeking sexual partners and Internet-related problems for Peruvians, the r values ranged from .12 to .28. These correlational coefficients are considered weak against traditional psychometric standards (Tabachnick & Fidell, 2007). It is noted here that amount of time spent on the Internet for general, non-sexual purposes also correlated mildly with one or more indices of maladjustment for both national groups.

CHAPTER FIVE: DISCUSSION

It was hypothesized that the U.S. young adults would engage in OSA significantly more than Peruvian young adults. Contrary to the hypothesis, results indicated that Peruvian young adults used the Internet significantly more than U.S. young adults for sex-related information seeking, finding sexual partners, as well as viewing SEM. This prediction was based partially on the presumption that Peruvians have less access to the Internet than U.S. young adults, and therefore, have less opportunity to use the Internet for OSA (Blas et al., 2006). Curioso et al. (2007) reported that most OSA in Peru occurs in private booths inside many of Peru's Internet Cafés. Yet, access to the Internet was not as limited as expected among this sample of Peruvians. Although some Peruvians reported using Internet cafés, most had Internet access at home. This prediction also was based on previous studies that have noted that the college dorm environment facilitates OSA usage (Young, 2004). Because the concept of living on campus is not common in Peru, it was expected that U.S. young adults would use the Internet more for all purposes, yet was not found. Hence, the results suggest that using the Internet for OSA is not necessarily a function of the school environment and may not represent a serious problem among college students as previously proclaimed (Cooper et al., 2001). The average amount of time engaged in OSA was negligible across nationality and gender, ranging from roughly one hour per week for U.S. women to five hours per week for Peruvian women (men's average time per week spent on OSA fell in between those two averages, with U.S. men spending roughly 2.5 hours per week and Peruvian men spending roughly 1.5 hours per week). It bears noting that this cohort of young adults grew up using the Internet and they are at a developmental stage where it is normative to be focused on pursuing sexual and intimate relationships (Erickson, 1980).

In order to explore differences in OSA usage between Peruvian and U.S. young adults, a number of variables were examined that might have accounted for the differences. These variables were considered important because some researchers have suggested that relatively sexually restrictive societies might have different patterns of OSA (Kettmann, 2001). Peruvian culture, in general, is perceived as being more restrictive, more conservative and religious, less open on sexual matters, and having relatively close-knitted families (Caceres et al., 2008). However, in this study, Peruvian young adults did not differ from U.S. young adults in family cohesion or conflict, but reported less perceived support than U.S. young adults. Their lower scores on perceived support in comparison to U.S. young adults may be explained by contemporary Peruvian society becoming increasingly more modern and individualistic. Further, it may be that their perceptions of less social support reflect this cohort of Peruvians' newfound autonomy from their families of origin. Further, some researchers have found that U.S. families have become closer and more supportive in the past decade (Arnett, 2004; Roberts, 2010).

In general, Peruvian young adults also reported that their childhood families were more open to discussing sexual matters in comparison to U.S. young adults. However, the nature of the questions used in this study to assess family openness to discussing sexuality was not specific enough to clarify the quality of the discussions. That is, the questions assessing openness to discuss sex within the family were not specific enough to shed light on whether such discussions (if they occurred) were attempts to promote abstinence and instill fear in the young adults, or were efforts to provide accurate, medically-based information about sex with the aim of helping the young adults make informed decisions about their on-going exploration of their sexualities. The fact that Peruvians scored higher on erotophobia than U.S. young adults suggests that the

former might be the case. Yet, when these variables were controlled for, Peruvians still used the Internet more than U.S. young adults for sex-related information seeking, partner seeking, and viewing SEM. This suggests that Peruvian young adult's usage of the Internet for OSA is, perhaps, a function of a confluence of variables. As stated, some researchers have suggested that relatively sexually restrictive societies might engage in more OSA (Kettmann, 2001), and it appears that Peru's more sexually restrictive society may, at least partially, be related to higher rates of OSA.

For U.S. young adults, using the Internet for sex-related information seeking and SEM correlated with being less religious, having less social support, and being more erotophilic. Using the Internet for information seeking also correlated with more family conflict. This pattern of responding suggests that being relatively less religious and more open to sexuality, as well as not perceiving being supported socially, may be associated with usage of the Internet for information-seeking and SEM. The fact that those who used the Internet for information seeking tended to have more family conflict suggests that the Internet may serve as a resource for individuals in need of sex-related information who perceive that they cannot rely on their families for such information. This finding is consistent with the suggestion that the Internet serves as a useful educational tool for sex-related information (Newman, 1997).

U.S. young adults who used the Internet for seeking out a sexual partner also were found to have relatively lower levels of erotophobia, and report less family cohesion. Erotophilia was the only variable that was associated with all three forms of OSA for U.S. young adults, suggesting that openness and comfort with sex and sexuality probably is a key determinant of OSA. Among U.S. college students, erotophilia has been found to influence the number of sexual

partners one has and acceptance of SEM (Fisher et al., 1988). The results of this study extend these findings to OSA. Moreover, apart from erotophilia, there appear to be some differences in those who use the Internet for viewing SEM and searching for information seeking, versus those who use the Internet for finding a sexual partner. Lower levels of religiosity were not as strongly associated with seeking a partner as were lower levels of family cohesion. This suggests that for some U.S. young adults, there may be minimal conflict between religious convictions and using the Internet for finding sexual partners. Further, less family cohesion may reflect that these young adults are less attached to their families of origin, and thus, have more autonomy to seek out partners.

In contrast, for Peruvians, very few significant correlations were found between OSA and other variables. Sex-related information seeking and partner seeking both correlated with less family cohesion. The significance of family cohesion for both partner seeking and information seeking for Peruvian young adults is noteworthy. The absence of an emotional connection with family members likely influences Peruvians to use the Internet to find sexual partners and sex-related information. As with U.S. young adults, less family cohesion may translate into a measured amount of detachment from the family, thus creating more freedom to engage in OSA. Also, for Peruvians, viewing SEM negatively correlated with religiosity suggesting that religiosity (and Catholicism in particular) may inhibit Peruvians from viewing SEM on the Internet due to its traditional stance on sexuality (likewise, being relatively less religious may liberate one to enjoy sexually-related activities such as OSA).

Results of the moderation analyses indicated that lower levels of erotophobia (i.e., higher levels of erotophilia) moderate the relation between nationality and using the Internet for

viewing SEM. Specifically, the moderating role of erotophilia was only found for U.S. young adults. Openness to sexuality, especially when combined with accessibility, affordability, and anonymity of the Internet, naturally would facilitate OSA (Cooper, 1998). Further, the lack of erotophilia to moderate viewing SEM for Peruvians might be influenced by various factors. It is possible that Peru's relatively restrictive sexual society leads many young Peruvians, even those with elevated levels of erotophobia, to use the Internet for sexual purposes. Although Peruvian citizens, as a group, tend to hold socially conservative values due primarily to Catholicism (Caceres et al., 2008), private sexuality generally is accepted. It is possible that using the Internet for sexual purposes is considered a private matter and possibly even a private social norm. Finally, it may be possible that although most Peruvian young adults admitted to engaging in OSA, the restrictive sexual environment may make it less likely that Peruvian young adults would portray themselves as erotophilic. By contrast, sexually-explicit material has become "mainstream" in U.S. society with high levels of acceptance by both genders (Carroll et al., 2008). The acceptance of OSA in Peruvian society was not measured, but based on the role religion plays in shaping social views, it would be expected that acceptance of SEM, or descriptions of erotophilia (e.g., "Engaging in group sex is an entertaining idea to me.") would be lower, even if OSA is prevalent.

Further, perceived social support was found to moderate the usage of the Internet for viewing SEM and for seeking sex-related information, but, once again, only for U.S. young adults. This finding suggests that perhaps for U.S. young adults using the Internet to view SEM and find sex-related information is related to perceived autonomy from parents more so than Peruvian young adults. In Peru, it is socially accepted that children will live at home until they

are in their mid-to-late 20s, and hence are presumed to have less autonomy (compared to U.S. young adults).

Finally, family cohesion was found to moderate the relation for U.S. young adult's usage of the Internet for information seeking. This finding suggests that less cohesion in the home may lead young adults to use the Internet to find health information. This suggests that the Internet may play an important role in helping young adults obtain sex-related information they need but possibly cannot obtain from their families or from their existing social network. Thus, the ability of the Internet to help individuals obtain crucial information about sex, sexual orientation and identity, and about health related matters such as STIs and contraceptives should not be underestimated.

It also was hypothesized that men, irrespective of country, would engage in OSA significantly more than women. This hypothesis was supported generally. As expected, men reported consuming significantly more SEM than women. However, there were no significant differences among men and women's usage of the Internet for sex-related information seeking or for finding sexual partners. The finding with SEM is consistent with previous studies that have shown that men consume more SEM than women (Carroll et al., 2008; Goodson et al., 2001). Among my sample, Peruvian women were significantly more likely to view SEM and to use the Internet to search for partners than U.S. women. Although Peruvian society is relatively restrictive sexually, men generally are allowed a greater level of sexual freedom (Mirande, 1997). It may be that the Peruvian women in this study use the Internet as a means of expressing their sexuality outside the public eye. This finding may also reflect greater notions of equality or liberty among Peruvian women who attend college. Additional data are needed to illuminate this

particular finding. Moreover, it bears noting that in absolute terms, both national groups and genders rarely used the Internet for seeking sexual partners.

In order to explore further the gender differences in OSA usage, gender differences were examined among study variables. Women reported having more sexual discussions with parents while growing up, being more religious, and more erotophobic than men. Although women reported having a more open environment of discussing sexual matters while growing up, as discussed earlier, it is not clear if those discussions were open, non-judgmental discussions, or more fear-based discussions. Given women's relatively higher levels of religiosity and erotophobia, along with the implications sexual activity has for women (i.e., pregnancy) and the societal pressure to control female sexuality (Emilio & Freedman, 1997), it is speculated that the discussions of sex may have been to restrict their sexual behavior. Nonetheless, when religiosity, erotophobia, and perception of their childhood family's openness to discuss sexual matters were controlled for statistically, men's greater use of the Internet to find sexual partners became statistically significant.

Openness of sexual discussions, religiosity, and erotophobia were then tested as possible moderators between gender and OSA. The variables were not found to moderate the relation between gender and sex-related information seeking and partner seeking. Erotophilia, however, was found to moderate the relation between gender and SEM, for both men and women. Similar to findings between the national groups, it seems that erotophilia is a critical variable that likely influences viewing SEM online, whereas other variables-either in addition to or apart from erotophilia-likely are involved with using the Internet for seeking sexual partners. Moreover,

one's level of erotophilia or erotophobia seems unrelated to the desire to use the Internet for obtaining sex-related information.

Finally, it was expected, but not formally hypothesized, that OSA would minimally, if at all, be linked with maladjustment. In order to explore this, I examined the data from three distinct angles. First, I compared participants who engage OSA with those who do not engage in OSA on indices of maladjustment. Then, I compared those who engage in OSA a relatively high amount versus those who engage in OSA a relatively low amount on the indices of maladjustment (these comparisons were followed by similar comparisons between high- vs. low-Internet users for general, non-sexual purposes). Finally, I examined the correlations between OSA and maladjustment, as well as between general, non-sexual purposes and maladjustment in a linear fashion.

Results were rather dramatic. Overall, young adults across nationality and gender who engaged in OSA were not found to differ significantly from young adults who do not engage in OSA on symptoms of psychopathology, self-esteem, loneliness, or on problems stemming from using the Internet. Moreover, when participants who engage in OSA were divided arbitrarily by a median split into high- versus low-users, the two groups (high- vs. low-users) did not differ significantly.

Zero-order correlations revealed that OSA was associated with various indices of maladjustment. These associations were noted more for U.S. young adults than for Peruvian young adults. Most notable, though, was the fairly consistent pattern of weak associations between OSA and maladjustment. As noted earlier, with the exception of the correlation between using the Internet for seeking sexual partners and Internet-related problems for Peruvians, the

correlation coefficients were low in magnitude, suggesting that OSA correlates only mildly, at most, with maladjustment.

As a means to demonstrate that high usage of the Internet for any purpose—even for non-sexually-related purposes—may be correlated with some level of maladjustment, young adults across nationality and gender were divided into high versus low-Internet user categories for general, non-sexual purposes to determine if high-users on the Internet would manifest higher levels of maladjustment relative to low-users. Out of 16 comparisons, one achieved statistical significance. U.S. women who were high-users of the Internet for general, non-sexual purposes, had significantly higher internet-related problems than their low-using counterparts. Moreover, overall amount of time using the Internet for general, non-sexual purposes also correlated significantly with various indices of maladjustment for the young adults.

Finally, I wish to draw attention to the comparisons that were made across nationality and gender between OSA engagers versus non-OSA engagers, and between high versus low-engagers of OSA, on the BSI-18. Among the indices of maladjustment used in this study, the BSI-18 was the only traditional clinical measure of psychopathology. The BSI-18 assesses symptoms of anxiety, depression, and somatization. OSA engagers and high-OSA engagers across nationality and gender did not differ significantly on the BSI-18 compared with non-OSA engagers and low-OSA engagers, respectively, providing additional evidence that using the Internet for sexually-related purposes seems to cause minimal if any psychological harm to young adults, particularly if harm is defined as traditional indices of symptoms of psychopathology.

Summary and Conclusion

In this study, I examined U.S. and Peruvian young adults' usage of the Internet for sexually-related purposes by examining the amount of time they spend engaged in OSA and the extent to which their OSA is for viewing SEM, seeking sexual partners, and searching for sex-related information. The cross-national nature of this study provided a unique opportunity to obtain a broader perspective on the pervasiveness of OSA by comparing two similar cohorts of young adults but from distinct cultural backgrounds. Counter to prediction, it was found that Peruvian young adults engaged in OSA more than U.S. young adults, although in absolute terms, both national groups engage in OSA a relatively low number of hours each week.

In addition to gender differences that generally indicated that, irrespective of nationality, men engage in OSA more than women, three variables appear to play a role in various degrees with young adults' proclivity to engage in OSA. They were erotophobia, religiosity, and parental discussion about sex and sexuality. Results fairly clearly indicated that holding relatively more negative attitudes about sex and sexuality (i.e., erotophobia) and being relatively more religious are associated with less OSA. I speculate, though do not know with certainty due to the correlational nature of this study, that erotophobia and religiosity probably act as inhibitors of sexual behavior, including OSA. The role of parental discussions about sex is less clear with respect to OSA. Parent-child discussions that reflect healthy or favorable attitudes about sex and are grounded in medically accurate information may afford young adults the liberty to explore their sexuality, including using the Internet for sexually-related purposes (such as viewing SEM). By contrast, negative, fear-based, and medically inaccurate discussions about sex likely either inhibits emerging adults from exploring their sexuality or may catapult them into sexual

exploration and activity while they are ill-equipped to make judicious decisions on matters involving their sexuality and health. The results of this study fell short in illuminating the role of open parent-child discussions about sex and OSA.

Finally, contrary to extensive concern expressed in the literature and in popular culture that OSA is deleterious to consumers' psychological or emotional well-being, these data—that were examined from diverse angles—paint a less dismal picture of this situation. In addition to the fact that young adults, on average, appear to not engage in OSA in excess, those who engage in OSA do not seem to differ from those who abstain from OSA on an array of maladjustment markers. Moreover, the link between OSA and maladjustment (based on correlations between OSA and specific indices of maladjustment) appears to be rather mild, suggesting the people's concern over OSA is exaggerated and probably unwarranted.

Limitations

These findings are to be considered in light of several limitations. First, it is important not to generalize this study beyond the cohorts that were examined. College students do not represent the average person in each nation. Further, it is not possible based on the correlational nature of this study to make causal statements on the association between OSA and maladjustment. Finally, this study examined U.S. and Peruvian young adult's usage of OSA, but it did not examine acceptance of those activities. Although young adults may engage in OSA, their engagement in the activity may not necessarily mean they accept it. There is a possibility that some young adults engage in OSA, but are not accepting of the material due to their guilt associated with it. Finally, given that the reliability estimates for the Spanish version of some of

the scales (e.g., the SOS) was conspicuously lower than that of the English version, it is possible that some items for the scales may not have adequately been translated

Table 1

Means and Standard Deviations for OSA

Component	<u>U.S.</u>		<u>Peruvian</u>		<u>Males</u>	<u>Females</u>
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	M (SD)	M (SD)
Information Seeking	2.13 (.52)		2.54 (.54)**		2.32 (.51)	2.19 (.56)
	3.50 (.78)	3.43 (.87)	4.06 (.79)	4.21 (.81)		
Partner Seeking	1.73 (.69)		2.13 (.74)		1.97 (.75)	1.73 (.69)
	1.95 (.77)	1.58 (.58)	2.66 (.67)	2.49 (.64)**		
SEM	2.14 (.84)		2.70 (.69)**		2.67(.71)*	1.96 (.81)
	2.66 (.67)	1.80 (.77)	2.69 (.75)	2.75(.50)**		

* Correlation is significant at .05 level.

**Correlation is significant at .01 level.

Table 2

Means and Standard Deviations for Study Variables

Component	<u>U.S.</u> M (SD)	<u>Peruvian</u> M (SD)	<u>Males</u> M (SD)	<u>Females</u> M (SD)
Family Cohesion	6.71 (2.32)	6.68 (2.09)	6.83 (1.97)	6.60 (2.51)
Family Conflict	3.96 (2.61)	3.37 (2.50)	3.60 (2.44)	3.95(2.71)
Sexual Openness of Childhood Family	2.71 (.94)	3.29 (.97)**	2.71 (.94)	3.07 (.98)**
Erotophobia	3.60 (1.01)	4.02 (.83)**	3.65 (.92)	3.86 (.97)*
Religiosity	3.26 (.98)**	2.81 (.67)	2.94 (.92)	3.31 (.91)**
Perceived Social Support	5.65 (.90)**	4.9 (.12)	5.21 (1.12)	5.62 (.99)

* Correlation is significant at .05 level.

**Correlation is significant at .01 level.

Table 3

Correlations between OSA, and Study Variables for U.S. Young Adults

	Religiosity	Family Openness to Discuss Sex	Social Support	Family Conflict	Family Cohesion	Erotophobia
Info- Seeking	-.26*	-.01	-.14*	.21**	-.08	-.48**
Partner- Seeking	-.23	.02	-.22	.09	-.12*	-.37**
SEIM	-.28**	.04	-.20**	.07	-.10	-.64**

* Correlation is significant at .05 level.

**Correlation is significant at .01 level.

Table 4

Correlations between OSA, and Study Variables for Peruvian Young Adults

	Religiosity	Family Openness to Discuss Sex	Social Support	Family Conflict	Family Cohesion	Erotophobia
Info- Seeking	.01	-.06	-.11	.11	-.20*	-.08
Partner- Seeking	.06	.13	-.09	.13	-.22*	-.13
SEM	-.19*	.05	.09	-.12	.16	.17

* Correlation is significant at .05 level.

**Correlation is significant at .01 level.

Table 5

Moderated Regression Analyses for Nationality and Sex-Related Information Seeking

<i>Regression/Variables</i>	<i>B</i>	<i>β</i>	<i>t</i>
<i>Sex-Related Information Seeking</i>			
Step 1. $F(7, 439) = 20.61, p < .001, r^2 = .24$			
Nationality	-.75	-.39	-8.05**
Family Cohesion	.02	.05	1.02
Family Conflict	.05	.14	3.03*
Sexual Openness of Family	-.04	-.04	-.934
Religiosity	.02	.02	.43
Perceived Social Support	-.08	-.09	-2.00*
Erotophobia	-.30	-.33	-7.19**
Step 2. $F(13, 433) = 12.38, p < .001, r^2 = .27$			
Nationality	-.72	-.37	-1.46
Family Cohesion	.16	.41	2.69*
Family Conflict	.12	.36	2.59*
Sexual Openness of Family	-.10	-.11	-1.47
Religiosity	-.10	-.11	-1.01
Perceived Social Support	.35	-.42	-2.94*
Erotophobia	-.26	-.29	-3.08*
Nationality X Family Cohesion	-.11	-.55	-2.55*
Nationality X Family Conflict	-.06	.25	-1.72
Nationality X Sexual Openness	.09	.08	1.04
Nationality X Religiosity	-.16	-.15	1.42
Nationality X Perceived Social Support	.19	.52	2.44*
Nationality X Erotophobia	-.07	-.07	-.73

Note. * $p < .05$ ** $p < .001$

Table 6

Moderated Regression Analyses for Nationality and Sexual Partner Seeking

Regression/Variables	B	β	t
<i>Sexual Partner Seeking</i>			
Step 1. $F(7, 441) = 13.00, p < .001, r^2 = .17$			
Nationality	-.35	-.22	-4.24**
Family Cohesion	-.02	-.05	-.92
Family Conflict	.01	.04	.74
Sexual Openness of Family	.05	.07	1.54
Religiosity	-.04	-.05	-1.13
Perceived Social Support	-.09	-.13	-2.61*
Erotophobia	-.19	-.25	-5.13**
Step 2. $F(13, 435) = 7.70, p < .001, r^2 = .19$			
Nationality	-.06	-.04	-.145
Family Cohesion	.067	.21	1.28
Family Conflict	-.01	-.01	-.05
Sexual Openness of Family	.09	.12	1.43
Religiosity	.01	.01	.08
Perceived Social Support	-.27	-.39	-2.57*
Erotophobia	-.06	-.08	-.833
Nationality X Cohesion	-.06	-.36	-1.61
Nationality X Conflict	-.01	-.04	.28
Nationality X Sexual Openness	-.05	-.06	-.68
Nationality X Religiosity	-.04	-.05	-.41
Nationality X Perceived Social Support	.12	.41	1.84
Nationality X Erotophobia	-.16	-.18	-1.84

Note. * $p < .05$ ** $p < .001$

Table 7

Moderated Regression Analyses for Nationality and SEM

<i>Regression/Variables</i>	<i>B</i>	<i>β</i>	<i>t</i>
<i>SEM</i>			
Step 1. $F(7, 441) = 27.49, p < .001, r^2 = .30$			
Nationality	-.56	-.30	-6.50**
Family Cohesion	.02	.07	1.47
Family Conflict	-.01	-.01	-.30
Sexual Openness of Family	.01	.01	.23
Religiosity	-.12	-.13	-2.89*
Perceived Social Support	-.08	-.10	-2.21*
Erotophobia	-.35	-.40	-9.10**
Step 2. $F(13, 435) = 23.57, p < .001, r^2 = .41$			
Nationality	.61	.33	1.44
Family Cohesion	.01	.04	.262
Family Conflict	.02	.05	.37
Sexual Openness of Family	.06	.07	1.06
Religiosity	-.14	-.16	-1.63
Perceived Social Support	-.38	-.48	-3.67**
Erotophobia	.09	.10	1.25
Nationality X Family Cohesion	.01	.04	.19
Nationality X Family Conflict	-.02	-.07	-.50
Nationality X Sexual Openness	-.06	-.05	-.77
Nationality X Religiosity	.18	.18	1.85
Nationality X Perceived Social Support	.21	.59	3.13**
Nationality X Erotophobia	-.64	-.64	-7.61**

Note. * $p < .05$ ** $p < .001$

Table 8

<i>Moderated Regression Analyses for Gender and Sex-Related Information Seeking</i>			
<i>Regression/Variables</i>	<i>B</i>	<i>β</i>	<i>t</i>
<i>Sex-Related Information Seeking</i>			
Step 1. $F(4, 445) = 26.15, p < .001, r^2 = .19$			
Gender	-.06	-.05	-1.00
Sexual Openness of Family	-.06	-.08	-1.77
Religiosity	-.03	-.04	-.86
Erotophobia	-.31	-.42	-9.27**
Step 2. $F(7, 442) = 15.54, p < .001, r^2 = .20$			
Gender	-.06	-.04	-.95
Sexual Openness of Family	-.10	-.13	-2.11*
Religiosity	-.07	-.09	-1.23
Erotophobia	-.32	-.43	-6.62**
Gender X Sexual Openness	.09	.09	1.42
Gender X Religiosity	.09	.08	1.15
Gender X Erotophobia	.02	.03	.42
<i>Note.</i> * $p < .05$ ** $p < .001$			

Table 9

Moderated Regression Analyses for Gender and Sexual Partner Seeking

<i>Regression/Variables</i>	<i>B</i>	<i>β</i>	<i>t</i>
<i>Sexual Partner Seeking</i>			
Step 1. $F(4, 445) = 12.13, p < .001, r^2 = .09$			
Gender	.14	.09	1.98*
Sexual Openness of Family	-.15	.10	4.07**
Religiosity	-.10	-.12	-2.49*
Erotophobia	-.15	-.19	-4.07**
Step 2. $F(7, 442) = 7.03, p < .001, r^2 = .10$			
Gender	.14	.10	2.02*
Sexual Openness of Family	-.07	.09	1.32
Religiosity	-.08	-.10	-1.38
Erotophobia	-.18	-.24	-3.48**
Gender X Sexual Openness	.02	.02	.23
Gender X Religiosity	-.02	-.02	-.23
Gender X Erotophobia	.07	.06	.93

Note. * $p < .05$ ** $p < .001$

Table 10

Moderated Regression Analyses for Gender and Sexual Partner Seeking

<i>Regression/Variables</i>	<i>B</i>	<i>β</i>	<i>t</i>
<i>SEM</i>			
Step 1. $F(4, 445) = 49.67, p < .001, r^2 = .30$			
Gender	.58	.34	8.25**
Sexual Openness of Family	.04	.05	1.12
Religiosity	-.15	-.16	-3.75**
Erotophobia	-.26	-.29	-7.11**
Step 2. $F(7, 442) = 31.63, p < .001, r^2 = .33$			
Gender	.59	.35	8.54**
Sexual Openness of Family	.02	.02	.36
Religiosity	-.05	-.05	-.82
Erotophobia	-.41	-.47	-7.94**
Gender X Sexual Openness	.04	.03	.51
Gender X Religiosity	-.15	-.11	-1.85
Gender X Erotophobia	.29	.22	3.99**

Note. * $p < .05$ ** $p < .001$

Table 11

Non-OSA versus OSA Users

<i>Scale</i>	<u>Participant Group</u>							
	<i>U.S. Men</i>		<i>U.S. Women</i>		<i>Peruvian Men</i>		<i>Peruvian Women</i>	
	<i>Non-OSA</i>	<i>OSA</i>	<i>Non-OSA</i>	<i>OSA</i>	<i>Non-OSA</i>	<i>OSA</i>	<i>Non-OSA</i>	<i>OSA</i>
BSI-sf	.50 (.47)	.63 (.63)	.64 (.57)	.81 (.74)	1.20 (1.1)	1.50 (.89)	.62 (.54)	.72 (.69)
Self-Esteem	3.24 (.49)	3.20 (.51)	3.16 (.49)	3.01 (.62)	3.05 (.43)	3.10 (.43)	3.12 (.45)	2.86 (.38)
Loneliness	2.10 (.51)	2.10 (.56)	1.90 (.51)	2.20 (.56)	2.10 (.69)	2.20 (.41)	2.13 (.53)	2.22 (.46)
Internet-related Problems	2.22 (.53)	2.30 (.51)	2.30 (.68)	2.50 (.50)	2.30 (.68)	2.45 (.68)	2.45 (.47)	2.60 (.75)

* Correlation is significant at .003 level.

Table 12

Low OSA versus High OSA

	<u>Participant Group</u>							
	<i>U.S. Men</i>		<i>U.S. Women</i>		<i>Peruvian Men</i>		<i>Peruvian Women</i>	
<i>Scale</i>	<i>Low OSA</i>	<i>High OSA</i>	<i>Low OSA</i>	<i>High OSA</i>	<i>Low OSA</i>	<i>High OSA</i>	<i>Low OSA</i>	<i>High OSA</i>
BSI-sf	.52 (.52)	(.76) (.74)	.77 (.71)	.82 (.78)	1.46 (1.1)	1.60 .84	1.24 (.83)	.64 (.69)
Self-Esteem	3.25 (.54)	3.07 (.46)	2.52 (.53)	3.18 (.56)	2.80 (.52)	3.16 (.40)	3.23 (.26)	2.73 (.34)
Loneliness	2.10 (.58)	2.11 (.55)	2.30 (.24)	2.13 (.64)	2.43 (.67)	2.19 (.35)	2.37 (.53)	2.17 (.42)
Internet-related Problems	2.21 (.43)	2.47 (.55)	2.54 (.63)	2.41 (.46)	2.54 (.98)	2.41 (.66)	2.73 (.58)	2.67 (.83)

* Correlation is significant at .003 level.

Table 13

<i>Low General Internet Users versus High General Internet Users</i>								
<u>Participant Group</u>								
<i>Scale</i>	<i>U.S. Men</i>		<i>U.S. Women</i>		<i>Peruvian Men</i>		<i>Peruvian Women</i>	
	<i>Low Time</i>	<i>High Time</i>	<i>Low Time</i>	<i>High Time</i>	<i>Low Time</i>	<i>High Time</i>	<i>Low Time</i>	<i>High Time</i>
BSI-sf	.58 (.62)	.53 (.47)	.61 (.65)	.70 (.54)	1.16 (1.09)	1.28 .88	.71 (.64)	.80 (.86)
Self-Esteem	3.21 (.52)	3.20 (.48)	3.23 (.49)	3.01 (.51)	3.06 (.42)	3.05 (.46)	3.01 (.45)	3.10 (.41)
Loneliness	2.03 (.52)	2.10 (.55)	1.88 (.51)	2.10 (.51)	2.00 (.41)	2.32 (.99)	2.17 (.48)	2.23 (.55)
Internet-related Problems	2.22 (.54)	2.33 (.48)	2.15 (.54)	2.40* (.52)	2.23 (.65)	2.50 (.70)	2.49 (.63)	2.87 (.57)

* Correlation is significant at .003 level.

Table 14

U.S Young Adults Correlations between OSA, General Internet Usage, and Maladjustment

	Internet Problems Scale	BSI	UCLA Loneliness	Rosenberg Self- Esteem	Satisfaction with Sex Life
Sex-Info Seeking	.16**	.13*	.23*	-.08	-.04
Partner Seeking	.28**	.05	.18**	-.10	-.27**
SEIM	.15**	.03	.22**	-.08	-.12*
Time (OSA)	.15**	.15**	.04	-.05	-.05
Total General Internet Usage	.10	.04	.03	.01	.03
Time (General)	.17*	.12*	.13*	-.13*	-.01

* Correlation is significant at .05 level.

**Correlation is significant at .01 level.

Table 15

Peruvian Young Adults Correlations between OSA, General Internet Usage, and Maladjustment

	Internet Problems Scale	BSI	UCLA Loneliness	Rosenberg Self-Esteem	Satisfaction with Sex Life
Sex-Info Seeking	-.06	.06	-.06	-.04	-.13
Partner Seeking	.35**	.16	.24**	-.20*	-.01
SEIM	-.14	-.10	.06	.14	.13
Time (OSA)	.21*	.01	.04	-.11	-.16
Total General Internet Usage	.12	-.03	-.01	.13	-.05
Time (General)	.09	-.03	.36*	.09	.04

* Correlation is significant at .05 level.

**Correlation is significant at .01 level.

APPENDIX: IRB APPROVAL LETTER



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Exempt Human Research

From: **UCF Institutional Review Board #1
FWA00000351, IRB00001138**

To: **Rodrigo Velezmoro**

Date: **October 22, 2009**

Dear Researcher:

On 10/22/2009, the IRB approved the following activity as human participant research that is exempt from regulation:

Type of Review: Initial Review
Project Title: Sexually-Related Internet Activities: Cross-National Comparison
Between United States and Peruvian Young Adults
Investigator: Rodrigo Velezmoro
IRB Number: SBE-09-06413
Funding Agency: None

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Joseph Bielitzki, DVM, UCF IRB Chair, this letter is signed by:

Signature applied by Janice Turchin on 10/22/2009 08:05:47 AM EDT

A handwritten signature in black ink that reads 'Janice Turchin'.

IRB Coordinator

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